

LITHOLOGIC DESCRIPTION OF SAMPLES SUBMITTED FOR ASSAY

Core samples from Skyline Oil Company's Skyline Big 18 No. 1 corehole,
drilled 2398.3 feet E/W line and 826.7 feet S/N line, sec. 2,
T. 5 S., R. 100 W., Garfield County, Colorado

Surface Elevation 8564.7 feet

From	To	Description
0	42	No core taken.
42	51.2	Siltstone and silty marlstone. Massive to well defined bedding, widely disseminated black carbonaceous material. Core badly broken and missing.
51.2	56.3	Marlstone, silty, tan and light brown, massive to well defined bedding. Vertically fractured with calcite and limonite coated fracture faces. A 0.3 ft. band of dark gray massive, medium-grade oil shale occurs at 54.6 ft.
56.3	64.6	Marlstone, tan and light brown, well defined and contorted bedding.
64.6	68.2	Siltstone and silty marlstone, light gray and light brown.
68.2	71.0	Marlstone, light brown and gray, well defined bedding. A 0.6 ft. band of dark brown and dark gray low-grade oil shale occurs at 70.0 ft.
71.0	72.2	Siltstone, yellowish-brown, well defined and contorted bedding, iron-stained.
72.2	76.5	Marlstone, silty, gray and light brown, well defined bedding.
76.5	80.5	Oil shale, lean, dark brown, well defined bedding.
80.5	86.0	Marlstone, silty, light gray and tan, well defined and contorted bedding.
86.0	88.1	Oil shale, lean, dark brown and dark gray, poorly defined bedding. A 0.6 ft. band of siltstone and silty marlstone occurs at 87.1 ft.
88.1	91.8	Marlstone, silty, tan and gray, contorted bedding, a 0.4 ft. band of light gray siltstone occurs at 91.0 ft.
91.8	93.8	Siltstone, light gray and yellowish-gray, carbonaceous.
93.8	117.5	Marlstone, gray and light brown, well defined bedding. Occasional thin bands of dark brown oil shale. A 0.2 ft. fracture heavily coated with pink calcite crystals occurs at 115.6 ft.
117.5	123.8	Siltstone, light gray and reddish-yellow, massive, carbonaceous.
123.8	138.2	Marlstone, silty in part, gray and light brown, well defined bedding.
138.2	157.2	Siltstone, light gray and tan, massive, carbonaceous.
157.2	165.1	Marlstone, tan and light brown, well defined bedding. 0.3 ft. bands of light gray siltstone occur at 157.7 and 160.8 ft.

Illustration No. 3232P

Laramie Petroleum Research Center, Laramie, Wyoming

April 25, 1960

Sample rec'd Dec. 2, 1959

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165.1	166.6	Oil shale, medium dark brown and dark gray, massive to well defined bedding.
166.6	170.8	Oil shale, lean, light brown and dark brown, massive to poorly defined bedding.
170.8	174.6	Marlstone, tan and light brown, well defined bedding.
174.6	177.7	Oil shale, lean, dark brown, massive to poorly defined bedding. A 0.6 ft. zone of bitumen filled crystal cavities occurs at 177.0 ft.
177.7	185.7	Marlstone, light gray, tan and light brown, poorly defined to well defined bedding. A 0.3 ft. band of light gray siltstone 183.2 ft.
186.7	188.5	Oil shale, medium, dark brown and dark gray, massive to poorly defined bedding. A 0.4 ft. tan tuff bed occurs at 187.4 ft.
188.5	192.6	Marlstone, tan and light brown, poorly defined to well defined bedding.
192.6	194.6	Oil shale, lean, dark brown, well defined bedding.
194.6	195.6	Marlstone, tan and light brown, well defined bedding.
195.6	200	Oil shale, lean to medium, light brown and dark brown, well defined bedding.
200	201.7	Oil shale, medium dark brown and dark gray, well defined bedding.
201.7	206.4	Marlstone, light gray to light brown, well defined bedding. Vertically fractured.
206.4	213.5	Oil shale, lean to medium, dark brown and dark gray, massive to well defined bedding.
213.5	216	Oil shale, lean, tan and light brown, well defined bedding.
216	230.2	Oil shale, medium, dark brown, well defined bedding. 1-foot of lean shale at 126.4 ft.
230.2	243.2	Oil shale, lean to medium, gray to dark brown, well defined bedding. 1-inch tuff beds occur at 234.1 and 236.2 ft.
243.2	244.5	Oil shale, medium, dark brown and dark gray, well defined bedding.
244.5	257.0	Oil shale, lean to medium, tan, gray and brown, well defined bedding. Rare 1/2 inch and less light gray tuff bands.
257.0	258.3	Oil shale, medium, dark brown and dark gray, well defined bedding.
258.3	268.4	Oil shale, lean, gray and light brown, well defined bedding.
268.4	269.4	Oil shale, medium, dark brown and dark gray, massive to thinly bedded.

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From	To	Description
269.4	281.0	Oil shale, lean, light brown, well defined bedding, vertically fractured.
281.0	282.4	Oil shale, medium to rich, dark brown and dark gray, well defined bedding.
282.4	286.4	Oil shale, lean, light brown and greenish brown, well defined bedding.
286.4	287.4	Oil shale, medium to rich, dark gray and dark brown, well defined bedding.
287.4	298.8	Oil shale, lean, light brown and gray, well defined bedding. A 1-inch tuff bed occurs at 295.2 ft. and a 3-inch tuff bed at 296.4 ft.
298.8	299.7	Oil shale, medium, dark gray, poorly defined bedding. A 1-inch light gray tuff bed occurs at 299.5 ft.
299.7	304.0	Oil shale, lean, tan and light brown, well defined bedding.
304.0	304.7	Oil shale, medium, dark brown and dark gray, well defined bedding.
304.7	312.0	Oil shale, lean, gray and light brown, well defined bedding. Several tan and light gray tuff beds, 1-inch and less.
312.0	314.0	Missing.
314.0	341.0	Oil shale, lean to medium, gray and light brown, well defined bedding. 2-inch tuff beds at 327.7, 328.0 and 331.6 ft.
341.0	342.7	Tuff bed, light gray, and bluish-gray, dark brown oil shale stringers in upper part.
(Upper wavy bed)	342.7	Oil shale, medium, light brown and dark brown, well defined bedding.
342.7	352.7	Oil shale, lean, light gray and light brown, well defined bedding.
352.7	353.7	Oil shale, medium, light brown and dark brown, well defined bedding.
353.7	357	Oil shale, medium to rich, dark brown and dark gray, well defined bedding.
357	357.4	Oil shale, lean to medium, light brown and dark brown, well defined bedding.
357.4	364.2	Marlstone, tan and light gray, well defined bedding. A 0.2 ft. band of dark brown oil shale occurs at 367.7 ft.
364.2	376.4	Oil shale, lean to medium, light gray, light brown and dark brown. Common thin tuff beds and inclusions. 0.3 ft. tuff beds occur at 382.8 ft. and 383.3 ft.
(Bottom "A" groove 376.4)	376.4	
376.4	383.6	

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From	To	Description
383.6	393.0	Oil shale, lean and medium, light brown and dark brown, well defined bedding.
393.0	393.5	Tuff bed, tan and light gray, very fine grained, massive.
(Mahogany Marker)		
393.5	396.7	Oil shale, lean, light brown, well defined bedding.
396.7	397.7	Oil shale, medium, dark brown and dark gray, poorly defined bedding.
397.7	399.9	Oil shale, lean to medium, light brown and dark brown, well defined bedding. A 0.1 ft. band of light gray tuff occurs at 399.8 ft.
399.9	408.7	Oil shale, rich, dark brown and dark gray, poorly defined to well defined bedding.
408.7	410.4	Oil shale, medium, light brown and dark brown, well defined bedding.
410.4	412.7	Oil shale, rich, dark brown and dark gray, poorly defined bedding.
412.7	416.3	Oil shale, lean, tan and light brown, well defined bedding. Common 0.2 ft. and less bands of rich oil shale.
416.3	417.3	Oil shale, rich, dark gray, poorly defined bedding. Common streaks of tan tuff.
417.3	419.6	Oil shale, lean, tan and light brown, well defined bedding.
419.6	425.0	Oil shale, medium, light brown and dark brown, massive to well defined bedding.
425.0	429.8	Oil shale, lean to medium, light brown and dark brown, well defined bedding.
429.8	438.4	Oil shale, lean, light gray and light brown, well defined bedding. A 0.7 ft. band of rich oil shale with tan and brown tuff partings exhibiting a cork-like appearance occurs at 434.5 ft.
438.4	439.8	Oil shale, medium to rich, dark brown to dark gray, massive to well defined bedding.
439.8	444.0	Oil shale, lean, light brown and dark brown, vertically fractured. A 0.5 ft. band of medium oil shale occurs at 442.8 ft.
444.0	445.8	Tuff bed, light gray and blue-gray, fractured.
(Lower Wavy Bed)		
445.8	446.0	Oil shale, rich, dark gray, poorly defined bedding.
446.0		Total depth.

Illustration No. 3235P

Laramie Petroleum Research Center, Laramie, Wyoming

April 25, 1960